

**PUB-NO:** WO009201515A1  
**DOCUMENT-IDENTIFIER:** WO 9201515 A1  
**TITLE:** MEDICAL WASTE FRAGMENTATION AND DISPOSAL SYSTEM

**PUBN-DATE:** February 6, 1992

**INVENTOR-INFORMATION:**

NAME	COUNTRY
SOLOMONS, CHARLES	US

**ASSIGNEE-INFORMATION:**

NAME	COUNTRY
SAFEGUARD MEDICAL SUPPLY L P	US

**APPL-NO:** US09004016

**APPL-DATE:** July 17, 1990

**PRIORITY-DATA:** US09004016W (July 17, 1990)

**INT-CL (IPC):** B02C019/12

**EUR-CL (EPC):** B02C019/00

**US-CL-CURRENT:** 241/99 , 241/100 , 241/190 , 241/606

**ABSTRACT:**

CHG DATE=19990617 STATUS=O>A portable desk top "medical waste" fragmentation device and disposal system (10), complying with governmental requirements of maximum residual fragment size and sanitization. The fragmentation device (10) includes a chamber (11a) having a rotating blade (20) for fragmenting medical waste such as needles, syringes, vials and extracted teeth. For maximum effectiveness in reducing the medical waste into the requisite fragment size, the blade (20), with minimal clearance, passes between a U-shaped stationary member (22). During operation, the U-shaped member (22) serves to momentarily hold the items to be fragmented in a stationary position as the blade (20) fragments it in a shearing-

type action. To ensure complete minimum size fragmentation, an agitating member (21) continually throws the fragments into the path of the rotating blade (20). After the fragmentation is completed to the requisite size, the fragmentation chamber (11a) is opened into a disposal chute (15). The fragmented particles are drawn by centripetal force through the disposal chute (15) into a removable and disposable receptacle (23) having a sterilization or germicidal solution (24) contained therein. The disposable receptacle (23), with sanitized waste, can thereafter be safely and legally thrown away as ordinary trash.

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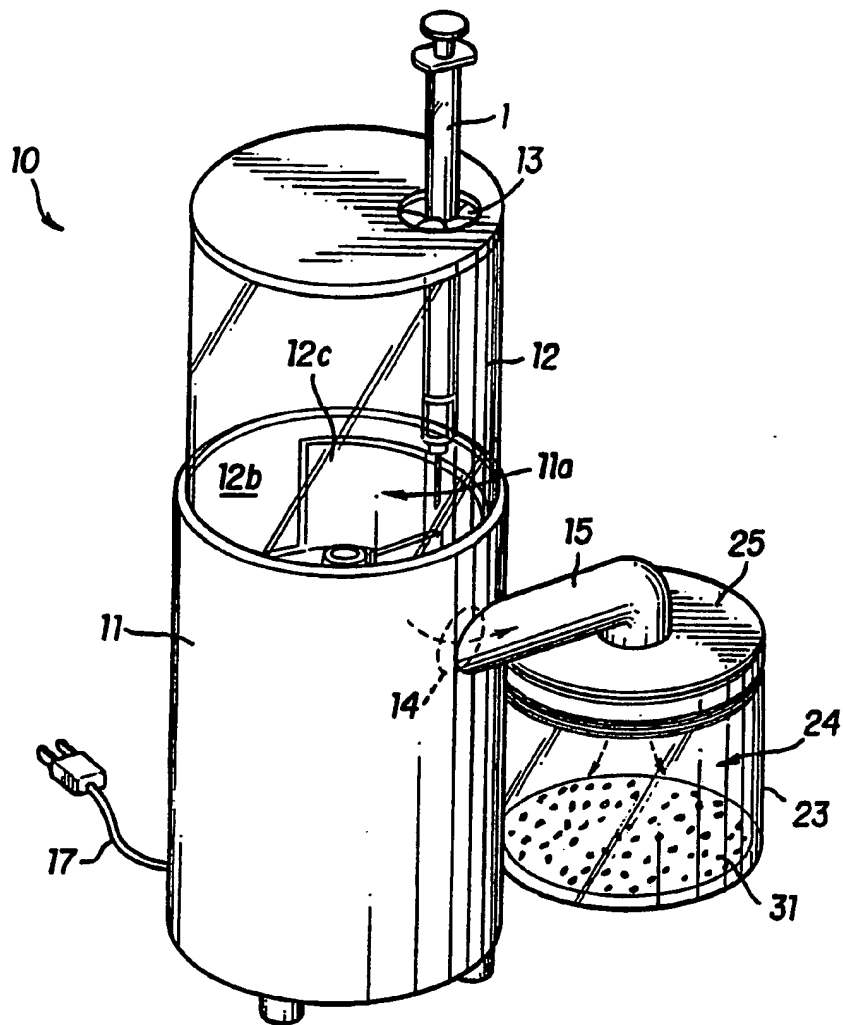


FIG. 1

SUBSTITUTE SHEET

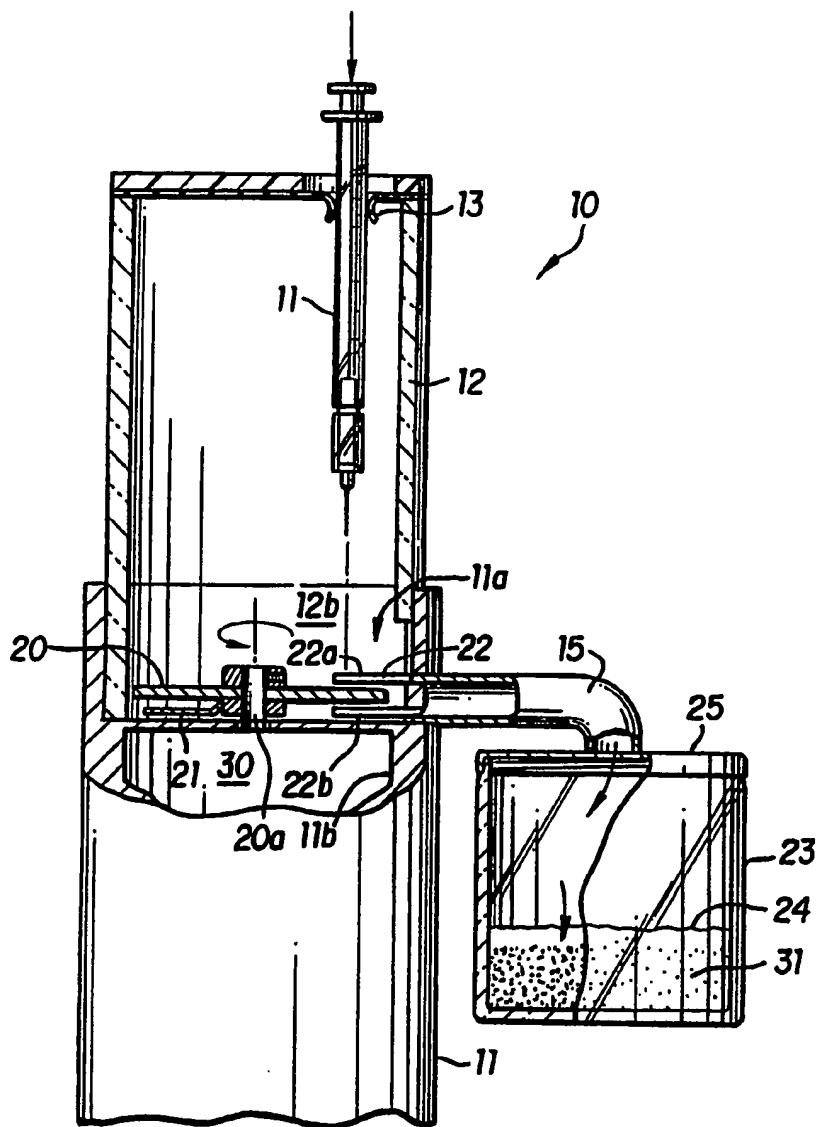


FIG. 2

SUBSTITUTE SHEET

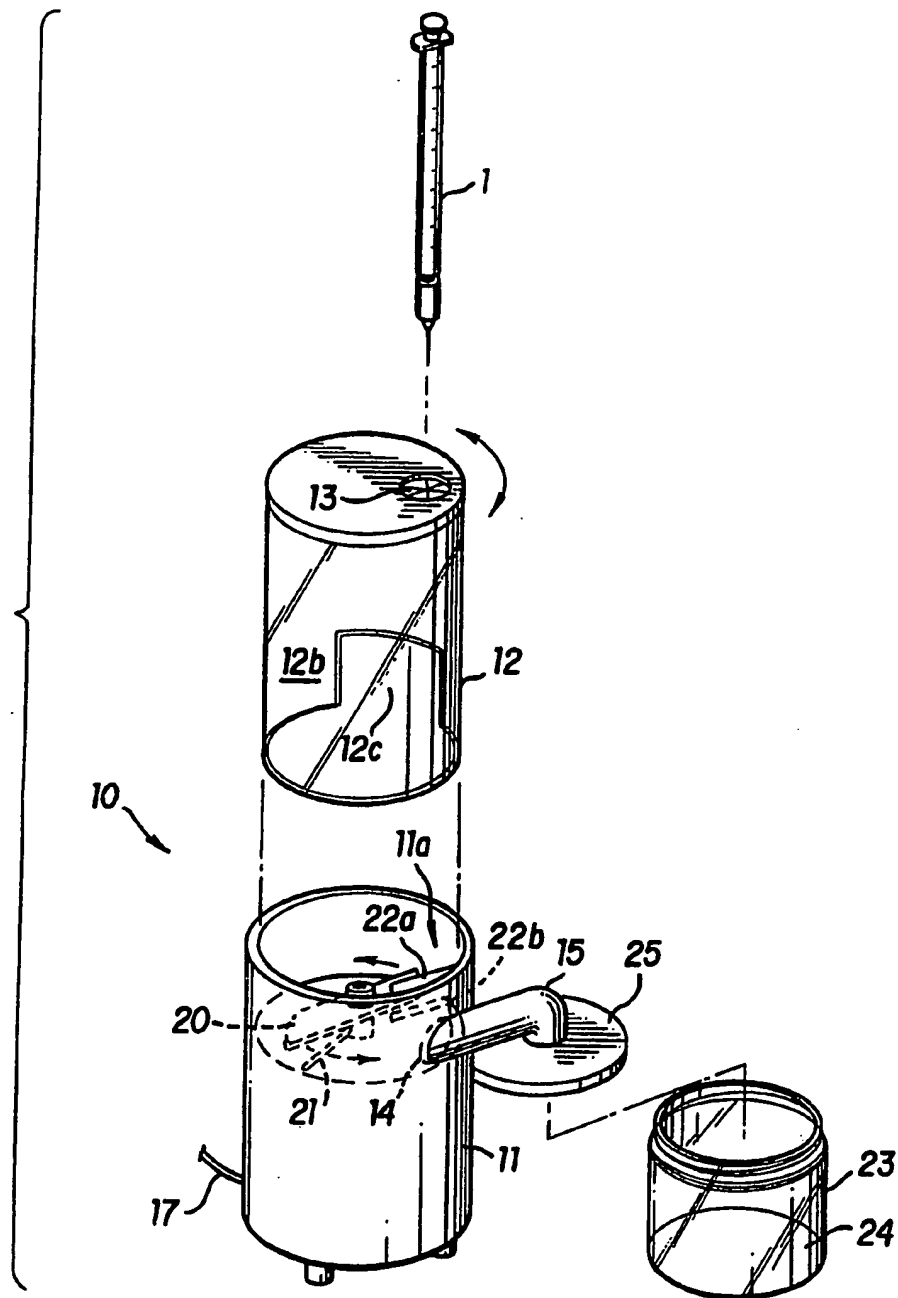
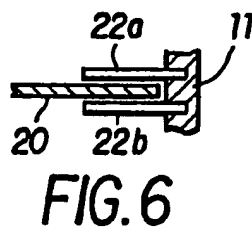
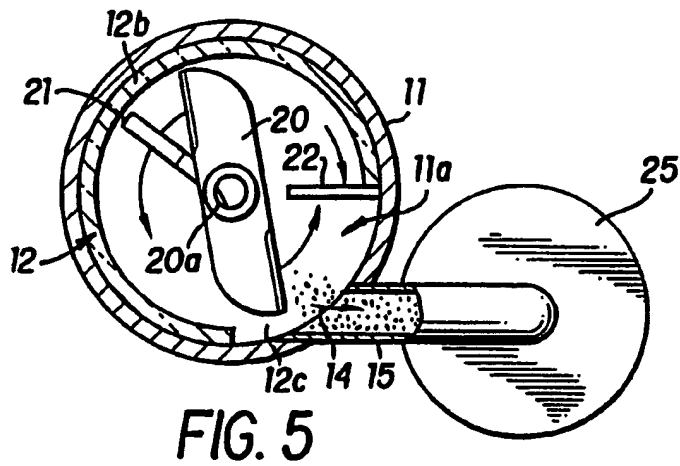
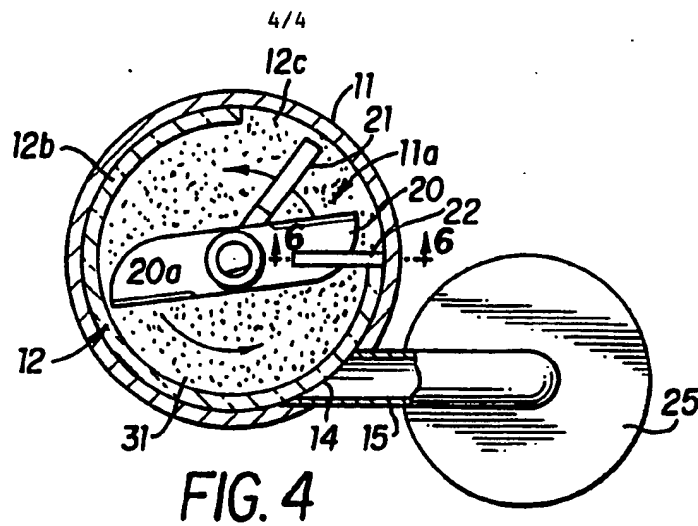


FIG. 3

SUBSTITUTE SHEET



SUBSTITUTE SHEET

# INTERNATIONAL SEARCH REPORT

International Application No. **PCT/US90/04016**

## I. CLASSIFICATION OF SUBJECT MATTER (if several classification symbols apply, indicate all) \*

According to International Patent Classification (IPC) or to both National Classification and IPC

IPC(5): **B02C 19/12**

U.S. CL.: **241/99, 100, 190, 199.12**

## II. FIELDS SEARCHED

Minimum Documentation Searched \*

Classification System \*

Classification Symbols

U.S. **241/199.12, 101.2, 99, 282.1, 282.2, 119,  
109, 100, 243, 190**

Documentation Searched other than Minimum Documentation  
to the Extent that such Documents are Included in the Fields Searched \*

## III. DOCUMENTS CONSIDERED TO BE RELEVANT \*\*

Category *	Citation of Document, ** with indication, where appropriate, of the relevant passages *	Relevant to Claim No. 1 *
<u>X</u> <u>Y</u>	US, A, 4,809,915 (KOFFSKY ET AL.) 07 March 1989, See the entire document.	<u>1,3</u> <u>2,4-9</u>
Y	BE, A, 514,335, 15 October 1952, See BLADE 21 in Figure 1.	7-9
A	JP, A, 19,569, 14 February 1979, (HIGASHIJIMA) See the entire document.	1-11
A	US, A, 3,958,765 (MUSSELMAN) 25 May 1976, See the entire document.	1-11
A	DE, C, 937,627, 12 January 1956, See the entire document.	1-11
A	FR, A, 1,146,306 (DELACROIX) 20 May 1957, See the entire document.	1-11

\* Special categories of cited documents: \*\*

"A" document defining the general state of the art which is not considered to be of particular relevance

"E" earlier document but published on or after the international filing date

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"O" document referring to an oral disclosure, use, exhibition or other means

"P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance: the claimed invention cannot be considered novel or cannot be considered to involve an inventive step

"Y" document of particular relevance: the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.

"&" document member of the same patent family

## IV. CERTIFICATION

Date of the Actual Completion of the International Search \*

**29 AUGUST 1990**

Date of Mailing of this International Search Report \*

**06 FEB 1991**

International Searching Authority \*

**ISA/US**

Signature of Authorized Officer \*\*

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